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Telepresence and entertainment

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published in

Immersed in media. Telepresence in everyday life
2010

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Hartmann, T., Klimmt, C., & Vorderer, P. A. (2010). Telepresence and entertainment. In C. Bracken, & P. Skalski (Eds.), *Immersed in media. Telepresence in everyday life* (pp. 137-157). Routledge.

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Chapter 7

Telepresence and Media Entertainment

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Most popular media have become popular because they offer opportunities for entertainment. The majority of television programming worldwide serves entertainment purposes, radio's favorite content is popular music, and the best-sold print media are novels such as *Harry Potter*. Clearly, there is a close connection between media popularity and entertainment content (see chapters 1 and 5, this volume). Most of these entertainment media have always tried to facilitate a sense of presence in their users, and their communicators either implicitly or explicitly regarded this kind of experience as condition for successful entertainment. Television, for instance, has invented different form and content elements (e.g., reality-based programming; Nabi, Biely, Morgan, & Stitt, 2003) that are intended to bring the depicted events as close as possible to viewers. Successful authors such as J.K. Rowling have been applauded for their imagination-stimulating language and their ability to create a whole fictional world in readers' inner eyes. So the connection between entertainment and Presence has been important to popular media for a long time, and advancements in media technology such as high definition television continue this history of conjunction (Bracken, 2005). The relationship between media enjoyment and a sense of Presence is probably even more pronounced in next generation entertainment media, especially video games (Vorderer & Bryant, 2006) which nicely mirror early visions of interactive, multimodal, three-dimensional virtual environments (e.g., Minski, 1980; Steuer, 1992).

In this chapter, we elaborate on the link between Presence and media entertainment. While there are relevant bodies of literature on the theory of Presence (e.g., Lee, 2004; Lombard & Ditton 1997; Wirth et al., 2007) and on entertainment theory (Bryant & Vorderer, 2006; Vorderer, 2003), only few conceptual bridges between them have been built so far (Klimmt & Vorderer, 2003; Green, Brock, & Kaufman, 2004; Sherry, 2004; Vorderer & Hartmann, 2009). To advance this conceptual integration, we first outline fundamentals of media entertainment theory and then discuss links between Presence and entertainment in detail.





Finally, we draw conclusions on future entertainment media and directions for a better empirical integration of Presence and entertainment research.

Conceptualizing Presence: “Being There” and With Others

Presence has been used as an umbrella term for different experiences. The shared characteristic of all addressed experiences is that users are considered to be temporarily less aware or unaware of the mediated origin of their experience (ISPR, 2001). Instead, users perceive media content as an “apparent reality” (Zillmann, 2006, p. 218). This chapter draws on the prominent distinction of Spatial Presence and Social Presence. In addition, we consider a third class of Presence-phenomena that covers users’ involvement (Wirth, 2006), transportation (Green, Brock, & Kaufman, 2004), and flow (Sherry, 2004).

Spatial Presence

In short, Spatial Presence refers to a user’s “feeling of being there” in the mediated environment (Biocca, 1997; Sheridan, 1992; Riva, Davide, & Ijsselstein, 2003; Lee, 2004). It can be defined as “a binary experience, during which perceived self-location and, in most cases, perceived action possibilities are connected to a mediated spatial environment, and mental capacities are bound by the mediated environment instead of reality” (Wirth et al., 2007, p. 497; Slater, 2002). Typical technological determinants of Spatial Presence are the degree of interactivity of a mediated spatial environment, the breadth of human sensory channels addressed by the environment, and the naturalness of provided spatial information across sensory channels (Biocca, 1997; Steuer, 1992). Typical user-based determinants are a person’s interest in and attention to the mediated spatial environment, user’s arousal level (Baumgartner, Valco, Esslen, & Jancke, 2006), and his or her cognitive-spatial abilities (Wirth et al., 2007).

Social Presence

Social Presence can be defined as a “sense of being together” with one or more other social beings, although the others are not physically present (Bente, Rüggeberg, & Krämer, 2005; Biocca, Harms, & Burgoon, 2003; Blascovich et al., 2002; Schroeder, 2002). Social Presence includes a feeling of co-awareness and mutually adapted interpersonal behavior (Biocca et al., 2003). Social Presence may be also accompanied by the natural normative underpinnings of interpersonal encounters. For exam-





ple, research by Yee, Bailenson, Urbanek, Chang, and Merget (2007) suggests that under conditions of Social Presence users tend to apply the same interpersonal norms as in real-world situations. Based on this and related findings, researchers suggested that intense experiences of Social Presence may result in a stronger adherence to norms, which in turn may lead to less playful and care-free behaviors than in parasocial encounters in which users stay aware of the mediated nature of the other (Reeves & Nass, 1996; Hartmann, 2008). Among the most often named determinants of Social Presence are “eye-gazing” and other addressing verbal or non-verbal behavior of mediated others (Bente, Krämer, & Eschenburg, 2008). Drawing on ideas of Mar and Macrae (2006), it may be further speculated that to create a sense of Social Presence, an entity must be perceived as an intentional agent that seems capable to observe the current behavior of a user and to interactively adapt to it.

Other Experiences of Non-mediation

Researchers in various disciplines suggested different terms for phenomena that can be regarded as sensations of Presence as well. In this chapter, we focus on involvement (Wirth, 2006), transportation (Green, Brock, & Kaufman, 2004), and flow (Sherry, 2004, Csíkszentmihályi, 1990). All three phenomena have in common that the quality that is experienced as non-mediated is less specifically conceptualized than the spatial sensation in Spatial Presence or the social sensation in Social Presence. Rather, all three phenomena deal with a general sensation “to get lost in” or “to get absorbed by” mediated content. *Involvement* can be understood as the responsiveness of users’ cognitive, affective, and behavioral processes to the “apparent reality” offered by a media content: “During media exposure, involvement is understood as the perceived connection between and individual and the mass media content on the one hand, and the degree to which the individual interacts psychologically with a medium or its message, on the other” (Wirth, 2006, pp. 200–201). Accordingly, involved users do not think and feel about a media message, but within a media message (Liebes & Katz, 1986; Tan, 1996; Vorderer, 1993). Involvement is said to depend strongly on a user’s interest in the content, and the resulting attention allocation. In a similar fashion, *transportation* is defined as the “phenomenological experience of being absorbed in a story” (Green, Garst, & Brock, 2004, p. 167). In contrast to Social Presence or Spatial Presence, transportation requires a narrative. Similar to involved users, transported users “see the action of a story unfolding before them” (Green, Garst, & Brock, 2004, p. 168). As Green, Garst, and Brock (2004) point out, transportation builds strongly on how much users find a narrative plausible, which in turn also depends on how much they are willing and able to suspend





any disbelief. *Flow*, in turn, is understood as an intrinsically pleasurable experience that users can experience if clearly defined tasks imposed by a media environment match exactly their skills (Sherry, 2004; Sweetser & Wyeth, 2005). If this is the case, users will neither feel bored (too easy tasks), nor frustrated (too complicated tasks), but may get lost in the interaction with the media environment.

In sum, the concept of Presence circles around the idea that users temporarily believe in the apparent reality provided by a media offering. Users may believe in an apparent spatial or social reality, or they may simply lose focus on the actual reality. In general, both automatic and voluntary processes seem to trigger the sensation of Presence. Users may automatically respond to content-factors, i.e., cues provided by the media that accurately mimic natural cues, giving rise to a feeling that “this is real” (Schubert, 2009; Skalski, Lange, Tamborini & Shelton, 2006). In addition, users may also be motivated to get lost in an apparent reality (user-factors). Accordingly, they may spend effort to maintain a belief in the world presented by a medium.

The distinction between automatic and voluntary processes in the formation of Presence warrants further discussion. Media offerings vary in their immersive capabilities (Witmer & Singer, 1998) and thus in their potential to automatically trigger Presence. Highly immersive technologies foster Presence in two ways, by displaying meaningful and natural cues and by limiting user’s possibilities to withdraw attention (Witmer & Singer, 1998). Natural depictions may automatically create sensations of an apparent reality (Schubert, 2009; Zillmann, 2006). It may be hard, if not impossible, for users to fully suppress such natural sensations. A simple drawing of a three-dimensional cube may always lead to the perception of depth, for example, although everybody knows that this is just a mediated illusion. In a similar fashion, more complex spatial sceneries, if accurately displayed, may automatically induce a feeling of Spatial Presence, just like simple social cues (e.g., eye-gazing) can automatically trigger a feeling of Social Presence (Bente et al., 2008). Users may be as successful to regulate such immediate sensations of apparent reality as they are in regulating other highly automatic processes, like preventing a sneeze, for example. Still, if users are *motivated* to regulate their Presence experiences, some opportunities exist (Schramm & Wirth, 2008; Zillmann, 2006). One regulation strategy is that users simply start to recall that “this is not real”, maybe by switching to a critical reception mode and by starting to identify inaccuracies in the depiction. Such a strategy may be less successful, however, the more media content becomes immersive and accurate, convincing and believable (Witmer & Singer, 1998). Imagine a user being placed in the totally immersive and believable holodeck envisioned in *Star Trek*: Recalling that “this is not real” would not be a very effective strategy to suppress or modify





upcoming sensations of apparent reality. However, users of most contemporary media technologies are still able to return to reality quite easily, simply by withdrawing attention. Turning to another stimulus, closing eyes, shutting ears are simple but powerful strategies for users to disrupt the feeling of apparent reality. In sum, the more immersive an application, the more powerful it may be in automatically establishing a sense of Presence. At the same time, the more immersive the application, the more voluntary effort users need to invest to regulate their induced feeling of Presence.

Conceptualizing Media Entertainment

Experiences of entertainment have most often been described as positive feelings (Bryant & Vorderer, 2006; Vorderer & Hartmann, 2009; Klimmt & Vorderer, in press). Of what nature these feelings are is still under discussion, though, as over the past 10 to 15 years both communication science and media psychology have developed various conceptualizations that try to identify, differentiate and elaborate these emotional responses more specifically.

There seems to be some a growing consensus, however, that media users feel entertained if they manage two things, to regulate physiological homeostasis and to enhance their personal capabilities (self-enhancement or personal growth; Vorderer & Hartmann, 2009; Zillmann, 1988). The regulation of physiological homeostasis deals with users' balance-keeping of various bodily resources, including arousal and mood (Zillmann, 1988). Physiological imbalance is aversive, and restoring balance by "exploiting" the effect of environmental stimuli provides pleasurable relief. Self-enhancement, in turn, is about people's growth of personal skills and capabilities, i.e., learning (Ryan & Deci, 2000). Driven by curiosity and interest (Silvia, 2006), people voluntarily enter "unknown territory," i.e., engage in risky challenges or encounter puzzling incongruities, to enhance their abilities. Self-enhancement may often come at the cost of physiological resources (e.g., depletion of voluntary resources, loss of physical energy, a lowered mood; Baumeister, Bratslavsky, Muraven, & Tice, 1998). But the mastery of challenges or the resolution of incongruities is also often deeply satisfying (Ryan & Deci, 2000; Vorderer, Steen, & Chan, 2006; Ryan, Rigby, & Przybylski, 2006). In sum, it can be argued that people "exploit" environmental stimuli, including available media environments, to maintain both physiological homeostasis and personal growth.

Research from the Psychology of emotions suggest that both mechanisms are hierarchically organized: regulation of physiological imbalance seems to be of primary concern; people only engage in "risky" personal growth activities if they have sufficient resources to stand a





failure (mood-as-a-resource; Raghunathan & Trope, 2002; broaden-and-build theory of emotion, Fredrickson, 2004). Only with necessary resources ready at hand, people engage in challenges. For example, a positive mood urges people to engage in playful and adventurous exploratory behavior (Fredrickson, 2004). People may also “invest” positive mood to learn about self-threatening but highly relevant issues (Raghunathan & Trope, 2002). With respect to media entertainment, people may thus feel entertained by a media stimulus, because it provides pleasurable relief, i.e., restores imbalanced physiological resources, but they may also feel entertained, because the stimulus provides interesting challenges (Vorderer & Hartmann, 2009). A feeling of being entertained may become complex, if the media stimulus is both painfully demanding but also deeply gratifying (Oliver, 2008). A shocking horror movie, a suspenseful video game, or a irritating book, for example, may come at the cost of physiological resources and may even foster negative emotions. At the same time, however, these costs seem to be accepted or even appreciated by the user as a reasonable spending in the light of his or her challenge-seeking or perception of mastery of challenges (c.f., re-appraisals or meta-emotions; Bartsch, Vorderer, Mangold, & Viehoff, 2008; Oliver, 2008; Schramm & Wirth, 2008).

Linking Presence and Entertainment

One of the most striking overlaps between Presence and entertainment is that users need to believe in a media-induced reality if they want to feel entertained and if they want to feel present (Klimmt & Vorderer, 2003; Wirth, 2006; Green, Garst, & Brock, 2004). Accordingly, some researchers argue that a sensation of Presence is actually a prerequisite of entertainment (Vorderer & Hartmann, 2009) or that Presence is just entertaining in itself (Green, Brock, & Kaufman, 2004; Sherry, 2004). In contrast to the reception of art, which has been traditionally considered to be appreciated “from a distance” (Cupchik, 2002), the reception of media entertainment offerings has been typically characterized by a user’s lack of distance and heightened involvement (Vorderer, 1993). Past empirical research shows that Presence and entertainment experiences are indeed highly correlated sensations (Green, Garst, & Brock, 2004; Hartmann & Klimmt, 2005; Tamborini & Skalski, 2006; Sherry, 2004; Lombard, Reich, Grabe, Bracken, & Ditton, 2000; Ravaja et al., 2006; Skalski et al., 2006).

Causal Relationships Between Presence and Entertainment

Several causal links between Presence and entertainment may underlie their positive correlation (Figure 7.1). Both phenomena may only cor-



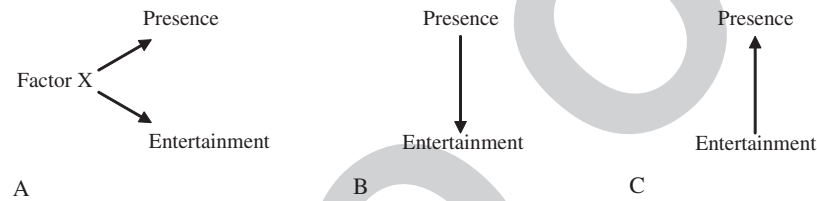


Figure 7.1 Possible causal relationships between Presence and entertainment experiences.

relate, because they build on the same factors (A), like, for example, user's attention allocation. It may be also fun in itself, however, to get lost in a media environment. A sensation of Presence may thus directly enhance users' entertainment experience (B). Vice versa, users may get lost in a media environment more easily, because they feel entertained. Accordingly, users' entertainment experience may influence the sensation of Presence (C).

To prove direct causal influences between Presence and entertainment (see B and C in Figure 7.1), one needs to show that either one or the other constructs precedes the other in time (Figure 7.2). For example, it may be argued that users of a virtual environment quickly establish a feeling of Presence, which then supports a more slowly developing entertainment experience (c.f., Zillmann, 2006). Vice versa, users could initially start to enjoy a medium, which then supports the formation of Presence.

As the analytic approach shows, possible causal relations between Presence and entertainment may underlie the found correlation between both phenomena. However, the analysis also shows that it is a difficult challenge to analytically and empirically disentangle *specific* causal relations. Literature and empirical research that conceptually linked and empirically examined both constructs is growing, but still rare (e.g., Green, Brock, & Kaufman, 2004; Hartmann & Klimmt, 2005; Tamborini & Skalski, 2006; Sherry, 2004; Lombard, Reich, Grabe, Bracken

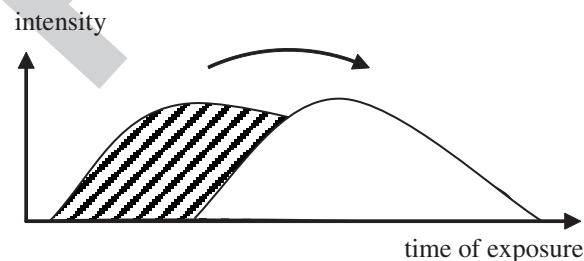


Figure 7.2 Causal influence of either Presence (shaded area) preceding entertainment (white area) in time, or entertainment (shaded area) preceding the formation of Presence (white area).





& Ditton, 2000; Ravaja, 2006; Skalski et al., 2006; Lombard & Ditton, 1997). Because of the preliminary status of the field, a discussion of the specific causal relations between both constructs can easily become speculative. We will therefore reduce complexity in the remainder of the chapter. Drawing on past literature, we will primarily discuss general reasons why Presence and entertainment may be interrelated, but we will only marginally speculate about specific causal relationships.

Potential Factors Underlying the Correlation of Presence and Entertainment

Automatic Natural Perceptions Presence and entertainment both appear to build on natural depictions, which *automatically* trigger the sensation of an apparent reality. A display of accurate spatial or social cues, as well as a natural mapping of users' input (Skalski et al., 2006), seems to effectively trigger Presence experiences (Wirth et al., 2007). Even fictional narratives can incorporate depictions that evoke such natural perceptions (Oatley, 1999; Zillmann, 2006). Natural cues may not only foster Presence, but also users' entertainment experiences. Vorderer and Hartmann (2009) argue that entertainment conveys feelings of enjoyment and interest. According to appraisal theories of emotion, emotions result from the detection and evaluation of *relevant* stimulus events (Scherer, 2005; Smith & Kirby, 2001). Enjoyment and interest should therefore particularly occur during media exposure if the events depicted in the media are relevant to the user (Silvia, 2008). If users do not perceive any relevant stimulus events in the media, they likely remain unaffected by the depiction. Therefore, it may be argued that things are emotionally more significant if they are *accurately* displayed in the media, than if they are depicted in an inaccurate manner (i.e., contain errors or inconsistencies). First, depictions that do not conform to natural occurrences could result in a quick discounting of immediate emotional responses, as their artificiality becomes clear (Zillmann, 2006). Second, media depictions that depart from naturalistic sensations, like modern art, will also most likely result in a psychologically distant user (Cupchik, 2002). Users that are psychologically distant perceive the media content as external observers. They stay aware of the mediated nature of the stimulus, tend to approach it in an analytical manner, and do not affectively respond to events happening within the mediated world (Tan, 1996; Vorderer, 1993). That is, while perceiving the same media offering, the psychologically distant user may subjectively perceive quite different events than an involved user, namely less relevant emotion-eliciting stimulus events. Accordingly, entertainment experiences of uninvolved users may be weakened.





In sum, a display of natural cues therefore seems to promote both entertainment and Presence. Examples of technology applications that seem to apply this principle are plenty. A popular example is *Shrek-4D*, a movie attraction at Universal theme parks that features an original 3-D film, plus an extra dimension of special effects like drops of water splashed in the faces of the viewers, wobbling movie chairs leading to a sensation of gravity, etc. The only empirical study we know of, however, that examined all three constructs at a time has been conducted by Skalski et al. (2006). The study shows that a natural mapping of users' input in a video racing game (steering wheel instead of keyboard) indeed increases both Spatial Presence and game enjoyment.

Attention Allocation and Interest A related similarity of Presence and entertainment is that both build on approach behavior (cf. Tamir & Diener, 2008). Approach behavior includes users' motivation to process the media content by paying attention. Interest can be an emotion that drives approach behavior and attention allocation, especially if individuals encounter unknown or unfamiliar things (Silvia, 2008). As Silvia (2008, p. 58) puts it: "Interest attracts people to new, unfamiliar things, and many of these things will turn out to be trivial, capricious, dangerous, or disturbing.[...] Interest is thus a counterweight to feelings of uncertainty and anxiety."

Interest in new and unfamiliar worlds of a media offering seems to guide people's attention allocation. Interest may thus ensure that people stay connected to the ongoing presentation of the media offering. Research has shown that users' attention allocation, in turn, precedes and accompanies Presence experiences (Wirth et al., 2007; Draper, Kaber, & Usher, 1998). An attention focus reduces user's processing of external information that else could undermine the emergence of Presence. An attention focus also ensures that Presence-evoking cues are readily perceived by a user. The same applies for entertainment, which requires and promotes attention to the stimulus as well. For example, if people do not pay sufficient attention, they may miss an important part of a joke or any other potentially enjoyable narrative or presentation. Accordingly, they may feel less entertained.

Escapism Users may not only be motivated to process a media offering, they may sometimes have the specific motivation that a media offering induces a sensation of apparent reality. That is, users may be especially interested to be stimulated by media offerings that accurately mimic real-world stimuli. A related motivation has been addressed as "escapism" in Communication Research (Henning & Vorderer, 2001; Katz & Foulkes, 1962; Moskalenko & Heine, 2003). According to Katz and





Foulkes (1962), people turn to fictional media content in order to forget about their troubling life situation. In a similar fashion, Moskalenko and Heine (2003) show that television is an “effective stimulus to direct the focus away from oneself and to render people less aware of how they are falling short of their standards” (p. 76). Research by Henning and Vorderer (2001) further demonstrates that some people escape to the media particularly to avoid situations where they have nothing else to do, because such “unfilled” situations would urge them to engage in thinking. In sum, good evidence exists that people sometimes escape to the media to avoid or alleviate noxious experiences (see also Zillmann, 1988; Zillmann, 2000).

Existing conceptualizations of escapism are not really specific about the type of Presence troubled people seek from the media, however. People escape to the media to block their previous noxious moods or thoughts (Zillmann, 1988). People thus successfully escape already if they get involved and manage to distract themselves. They do not need to establish a feeling of Spatial Presence or Social Presence. Escapism therefore seems to be primarily related to involvement; and only due to involvement it is related to more sophisticated forms of Presence, like Spatial or Social Presence.

Escapism can also be linked to entertainment, although this link is not entirely clear, either. It may be argued that a relief from noxious states already establishes a feeling of entertainment. In other words, people may feel entertained, because they successfully distract themselves from existing problems (Zillmann, 1988). In sum, one way to link escapism, Presence and entertainment experiences is that people try to escape their real-life problems by engaging in distracting media offerings. If the offerings are indeed involving and noxious states are successfully blocked, people can experience pleasurable relief, which may be considered a form of entertainment (Zillmann, 1988).

An opposing argument, however, is that reducing pain or other noxious states through media use does not suffice in evoking entertainment (cf. Vorderer & Hartmann, 2008). From this perspective pain relief may be indeed pleasurable, but a feeling of entertainment may require more than the absence of negative experience. Presence, escapism, and entertainment may be linked, because if media users reach a state of Presence (for instance, a strong sensation of being present in the video game world where the player *is* a war hero), this experience may mark a perfect escape from troublesome real-life circumstances (for instance, a state of humiliation and lack of social importance), as the mediated self-experience contrasts the real-life experience. Thus, not only the social forces that caused the trouble in reality are blocked away from users’ cognitions, emotions, and behavior, but users also escape towards a world that is beneficial in itself. From this perspective, escapism would





not only be enjoyable as people get away from troubling life situations, but also, because they arrive in entertaining mediated worlds. Such a perspective seems to be shared by Green, Garst, and Brock (2004) who show that transportation and enjoyment strongly correlate, obviously independent of noxious states or troublesome life situations people are in. Accordingly, they argue that transportation can be considered a general desirable state, sought out by individuals on a regular basis.

Suspension of Disbelief Next to escapism, suspension of disbelief has been highlighted as another motivational process in both Presence and entertainment research (Green, Brock, & Kaufman, 2004; Lombard & Ditton, 1997; Wirth et al., 2007). A users' disbelief in an apparent reality may be fostered by irritating, inaccurate, or inconsistent information provided by a medium. A willing suspension of disbelief, in turn, supports the maintenance of an existing Presence experience (Böcking, 2008; Green, Garst, & Brock, 2004; Wirth et al., 2007). Suspension of disbelief may therefore be linked to entertainment experiences as well. If users are forced to disbelieve in a media offering, they start to approach it from an analytical, and often critical perspective (Vorderer, 1993). As discussed above in the context of natural cues displayed by a medium, users may become emotionally less responsive to the events depicted by a medium, if they approach it from a critical perspective. Thus, their entertainment experience may be weakened. A willing suspension of disbelief, however, could help to maintain the illusion of an apparent reality and to keep the user involved. Users' suspension of disbelief may thus foster both entertainment and Presence experiences (Klimmt & Vorderer, 2003).

An applied example of this type of connection between media enjoyment and Presence are fictional video games. The successful Jedi Knight games that are related to the *Star Wars* series (cf., Pena & Hancock, 2006) are an example. The science-fiction context of these games puts combat action onto fictional planets, with fantasy weapons, magic (The Force), and continuous, striking contradictions to the laws of physics. At the same time, these game offer internally consistent 3D environments that can facilitate a sense of Spatial Presence. Players—especially fans of the *Star Wars* universe—are likely to suspend their disbelief concerning the differences between the reality of the game world and the actual reality in order to achieve pleasurable states such the joy of parasocial closeness to admired characters or feelings of curiosity when exploring spaceships known from the movies. With this high readiness to tolerate special, social, physical, etc., problems in the game, it is highly likely that players of *Star Wars* shooter games enter a sense of Presence as consequence of their wish to maintain enjoyment. By fulfilling a user-related requirement of entertainment—suspension of disbelief—game players pave the way for Presence experiences to co-occur with pleasure.





Arousal Another important factor underlying both entertainment and Presence seems to be *arousal*. Several studies suggest that arousal may foster Presence experiences (Baumgartner et al., 2006; Dillon, Keogh, Freeman, & Davidoff, 2000; Lombard et al., 2000). Baumgartner et al. (2006) provide neuropsychological evidence that arousal is positively correlated to Presence experiences (respective to related brain activities). Participants either watched an exciting or monotonous rollercoaster ride simulated on a computer. Users watching the exciting rollercoaster ride had both stronger arousal and feelings of Presence (and related brain activity) than did users watching the monotonous rollercoaster ride. The result suggests that users in a high state of arousal may tend to forget about the mediated nature of their experiences more easily.

Arousal has been considered an integral part of entertainment as well (Zillmann, 1991). Arousal underlies any suspenseful media content like movies, soccer matches, or dramatic novels (Vorderer, Wulff, & Friedrichsen, 1996). According to excitation-transfer theory (e.g., Zillmann, 1991), arousal is key to euphoria, which is aversive distress (high arousal, negative labeling) being converted into pleasurable eustress (high arousal, positive labeling). Euphoria, in turn, has been linked to the enjoyment of all kinds of dramatic narratives that result in a happy-ending, like distressing movies or video games, or close sport contests with a good ending (Zillmann, 1991).

Arousal may thus accompany both Presence and entertainment experiences (Schubert, 2009). Indeed, research by Lombard et al. (2000) shows that viewing bigger image sizes (due to bigger screens and/or smaller viewing distances) leads to a heightened arousal level of onlookers, as well as to stronger senses of Presence and enjoyment. Ravaja et al. (2006) examined users' responses of playing video games against human opponents versus the computer. The study shows that "playing against another human elicited higher Spatial Presence, [...] physiological arousal, as well as more positively valenced emotional responses" (p. 327) than playing against the computer. In sum, both studies provide evidence that arousal, Presence, and entertainment experiences are indeed related phenomena.

Conclusion

In sum, the review of the theoretical and empirical literature on Presence and entertainment shows that no approach exists so far that systematically conceptualized and examined the causal relationships between both constructs. The diversity of existing phenomena that are subsumed under the umbrella term "Presence" makes it difficult to develop such an integrative account. However, researchers already conceptualized and empirically tested links between entertainment and some of the *specific*





Presence phenomena, especially transportation (Green, Brock, & Kaufman, 2004) and flow (Sherry, 2004). With respect to flow experiences this may be less surprising, as flow has been *defined* as an intrinsically pleasurable experience. By definition, flow is entertaining.

In contrast, the definition of transportation does not entail pleasurable experiences. As Green, Garst, and Block (2004) argue, people may become fully engaged in a story without necessarily enjoying it. Still, transportation and enjoyment tend to be highly correlated. They explain the correlation by drawing on similar factors as the ones discussed above. Like transportation, conceptualizations of Spatial Presence and Social Presence also do include enjoyment or entertainment experiences. Still, both Presence experiences seem to be positively correlated with entertainment. Again, the factors discussed in this section: natural cues, user's interest, attention allocation, arousal, and motivation to believe, may explain this correlation.

Direct Mutual Effects Between Presence and Entertainment

So far, we highlighted factors that potentially underlie the positive relationship between Presence and entertainment. Less has been said, however, about how these factors may be embedded in causal relationships between Presence and entertainment (cf. Figure 7.1). For example, whereas users' willing suspension of disbelief seems to foster both Presence and entertainment, it may be that users first feel present and then suspend disbelief, giving rise to a feeling of entertainment (Zillmann, 2006), or, vice versa, that users feel entertained and thus motivated to suspend disbelief, giving rise to a feeling of Presence (see Figure 7.2). As argued above, sketching the exact causal relationships between both constructs is difficult and, given that research on this topic is still rare, necessarily leads to speculative assumptions. Still, we think some general speculations on how Presence may directly affect entertainment, and entertainment may directly affect Presence, are worthwhile.

Presence Fosters Entertainment Entertainment may become more likely, after users entered a state of Presence. Several researchers have argued that Presence, especially Spatial Presence, is a binary state (Slater, 2002; Vorderer, 1993; Wirth et al., 2007). Users can be either present or not present. Users that feel present probably start to perceive and experience things displayed by a medium differently than users that do not feel to be present. If users feel present, the formation of entertainment may be affected by their altered perception.

If users feel present, they allocate their attention onto the media stimulus, their sensory channels primarily perceive input generated by the media technology, and they tend to incorporate incoming information





into their overall belief that “this is true.” In such a state, several of the factors discussed in the previous section may be pronounced, increasing the likelihood that users feel entertained. For example, the media environment may become emotionally more significant. For instance, immediate dangers (like a displayed spider or snake) may be initially perceived as real dangers, and even more abstract or symbolic threats (like an upcoming nuclear strike) may be less critically reflected and more immediately perceived. Accordingly, users may become more aroused and excited, which holds the potential to increase their overall entertainment.

A major difference between entertainment and Presence experiences exists, however. Presence seems to increase the more users get involved and immersed in a medium. In contrast, it only requires a certain involvement for users to be entertained. For an optimal entertainment experience, users may sometimes need to regulate their emotions that are automatically induced while they are in an involved mode. If emotions get too intense, they may counteract enjoyment. If emotions get aversive (e.g., panic caused by an approaching spider), users need to be able to break the illusion and to distance themselves in order to regulate their emotions and to maintain their entertainment experience (Schramm & Wirth, 2008; Vorderer & Hartmann, 2009). Therefore, some media offerings that display highly accurate cues may trigger Presence, but diminish entertainment. At the same time, there may be many situations when entertainment is intensified when Presence is *reduced*—at least temporarily.

For instance, television stations hope to intensify affective audience responses to sports broadcasts by delivering high definition images (HDTV) that are much more rich in details, natural, and perceptually impressive (Bracken, 2005). Such displays may not only promise to increase Presence, but also viewer enjoyment, because they may trigger stronger arousal and excitement, for example, in broadcasted sport contests (Zillmann, Bryant, & Sapolsky, 1989). At the same time, however, a dramatic match presented in HDTV may increase moments where excitement gets exceedingly high, and even aversive, urging users to manage their arousal level. Consequently, users may actively reduce their sensation of Presence, to keep their arousal on a pleasurable level and to maintain their entertainment experience.

Entertainment Fosters Presence If users start to feel entertained by a medium, they may more readily accept it to be further drawn into the mediated world. Again, several of the factors discussed in the previous section may be pronounced, due to a rising feeling of entertainment.

Building on motivational concepts of media entertainment such as mood management theory (Zillmann, 1988) or the concept of entertainment as play (Klimmt & Vorderer, 2009; Steen & Owens, 2001;





Vorderer, 2003), it can be argued that people display a strong preference to enter and sustain pleasurable states. Zillmann (1988) refers to this motivational disposition as hedonic premise; in positive psychology, reaching and holding a state of well-being is construed as fundamental human motivation (Kahneman, Diener, & Schwarz, 1999). For the present research issue, these general motivational considerations imply that once media users experience enjoyment, they will in many cases intend to continue this state and to avoid shifts to less pleasurable conditions. Viewers of a television comedy who feel exhilarated during the first five minutes are likely to continue exposure, for instance, and players of video games who have acquired sufficient skill to be successful will continue game play in order to capitalize on their abilities in terms of fun (e.g., Klimmt, 2003).

Positive experiences facilitated by an entertaining medium may increase the likelihood that events portrayed by the medium are perceived to be relevant. A media message may thus become more interesting to media users, because it facilitates enjoyment. An interesting message, in turn, intensifies users' readiness to continue exposure. Continuation of exposure implies attention allocation to the message; that is, people focus their information processing resources on the message as long as they find it relevant and interesting (e.g., Lang, 2000). Continuation of exposure with sustained or even increased attention, in turn, ensures that those natural spatial or social cues that facilitate a sense of Presence are readily perceived by the user.

Entertained users may also engage more in playful and exploratory behavior. According to the broaden-and-build theory of positive emotions (e.g., Fredrickson, 2004), positive emotions broaden and expand an individual's attention and mind-set. Joy, for example, creates an urge to play, to push the limits, and to become creative. Accordingly, users that enjoy an interactive media offering may be more willing to play around with certain features, to test out new things, and to explore the environment. Via exploratory behavior, users may become more engaged. Presence experiences may thus be fostered or further intensified.

The intention to prolong and protect media enjoyment may also strengthen users' willingness to suspend any disbelief. If media users adjust their mode of media information processing in order to preserve enjoyment, they may more readily tolerate inconsistencies (Green, Garst, & Brock, 2004). Thus, the likelihood that Presence experiences emerge from further message processing substantially increases. If media users actively and tolerantly consume the entertainment message, they also utilize Presence-relevant content (e.g., descriptions of a building in a novel) in a constructive, benevolent manner—they let the message establish a sense of Presence in their mind. A non-critical mode of information processing that may result from the desire to maintain media enjoyment





could render Spatial or Social Presence follow-up consequences of (initial) entertainment experiences (Green, Garst, & Brock, 2004).

Conclusion First-hand impressions of how most popular media work render the assumption of integral connections between Presence and entertainment experiences more than obvious. Much contemporary development in media entertainment technology (such as HDTV, or graphics cards for PC gaming) seems to pursue an increase in audience experiences of Presence as route towards more or more sustainable enjoyment. From a theoretical perspective, however, the systematic elaboration of how these two concepts are interrelated is much more complex, which is caused by several reasons. One is the diversity of entertainment experiences (e.g., Klimmt & Vorderer, 2009); some modes of media enjoyment will be affected by Presence, others will not. Some of them may affect Presence, others may not. Moreover, the emergence of Presence depends on a broad range of media and user characteristics, and depending on the model of Presence one intends to apply (e.g., Lee, 2004; Schubert, 2009; Wirth et al., 2007), the conceptual elements where entertainment can be connected are different. Finally, interrelations between Presence and entertainment are likely to be technologically and psychologically specific for different popular media: Such connections may operate primarily through visual-perceptual processes in HDTV, user-medium interaction in video games, and involved imagination when reading a fictional story (cf. the “book problem” in Presence research in Schubert & Crusius, 2002), for instance.

The present chapter has discussed the relationship between Presence and entertainment at a general level and has, for the reasons mentioned, found only modest clarity concerning causal and temporal dependencies between the two concepts. More specific insight may be achieved if Presence and entertainment processes are elaborated on with a focus on a specific media message delivered through a specific media technology. For such smaller units of conceptualization, one specific theory of media entertainment may be applicable that allows to define the relationship between Presence and entertainment with more precision and predictive clarity to guide empirical investigations. For instance, crime drama presented in HDTV would be a case where Presence could be linked to entertainment evoked through psychological mechanisms explicated by affective disposition theory (Zillmann, 2006). Social presence with media characters could then be discussed in terms of how it affects the social-emotional viewer responses to the media characters that drive the entertainment experience. For such specific settings, less generalizable, but more detail-rich construals of links between Presence and entertainment are likely to emerge in future research on popular media.





While case-based theory connection remains a task for future work, the present chapter concludes that Presence and entertainment share various conceptual roots and/or characteristics. Both can only emerge if sufficient user motivation is available, and both depend on compatibility between media factors and user attributes, including skills, expectations, and thematic knowledge. There are also various lines of theory that support the assumption of Presence in general being a pathway towards entertainment, either because of causal facilitation of enjoyment or by dependence of both experiential processes from the same determinants.

At the general level of elaboration that has been pursued in this chapter, then, a conceptual vision of cyclic dependencies between Presence and entertainment seems to be the logical conclusion. Such a vision can be substantiated by discussing different cases of Presence and entertainment, collecting empirical evidence, and drawing generalized conclusions of how this cyclic dependency becomes manifest across different popular media technologies, message types, users, and situations of media use. In sum, the link between Presence and entertainment, as obvious and intuitive as it may appear, needs further conceptual work and empirical exploration before every-day observations and intuition can be replaced by solid theory with explanatory and predictive power.

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